

REMARKS

Claims 1 and 3-12 are currently pending, of which claims 1 and 3-10 are under examination. Claims 11 and 12 are withdrawn.

In the Office Action¹, the Examiner:

- a) withdrew claim 11;
- b) rejected claims 1, 3-6, 9, and 10 under 35 U.S.C. § 103(a) as being unpatentable over Schilling et al. (U.S. Patent No. 6,338,492, hereafter "Schilling")²;
- c) rejected claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Schilling in view of Sasaki et al. (U.S. Patent No. 6,337,120, hereafter "Sasaki"); and
- d) rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Schilling in view of Sakumato et al. (U.S. Publication No. 2002/0106954 A1, hereafter "Sakumato").

By this Amendment, Applicants amend claims 1 and 8.

Applicants respectfully traverse the rejections under 35 U.S.C. § 103(a). A *prima facie* case of obviousness has not been established regarding the claims.

"The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. . . . [R]ejections

¹ The Office Action contains statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

² The rejection on page 3 of the Office Action does not state that claim 10 is rejected, but the claim is discussed on page 7.

on obviousness cannot be sustained with mere conclusory statements.” M.P.E.P. § 2142, 8th Ed., Rev. 7 (July 2008) (internal citation and inner quotation omitted). “In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious.” M.P.E.P. § 2141.02(I) (emphases in original).

“[T]he framework for objective analysis for determining obviousness under 35 U.S.C. § 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966). . . . The factual inquiries . . . [include determining the scope and content of the prior art and] . . . [a]scertaining the differences between the claimed invention and the prior art.” M.P.E.P. § 2141(II). “Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art.” M.P.E.P. § 2141(III).

Claim 1, as amended, recites a sealing structure for polymer electrolyte fuel cell including at least “a gasket plate interposed between the bipolar plate and the membrane electrode assembly.” The claimed sealing structure, which is illustrated in Applicants’ Figs. 4-6, for example, includes a bipolar plate 100 having a sealing member, and a gasket plate 200 interposed between the bipolar plate 100 and a membrane electrode assembly 300, among other elements.³

³ In making reference to the specification and drawings set forth herein, it is to be understood that Applicants are in no way intending to limit the scope of the claims to the exemplary embodiments shown in the drawings and described in the specification. Rather, Applicants expressly affirm that they are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation and applicable case law.

Schilling discloses a sealing system comprising sealing elements 10, which are inserted into grooves 9 of bipolar plates 2 and 3 to fill the grooves 9. See Fig. 1, for example. However, as illustrated in Fig. 1, the sealing system of Schilling only discloses a membrane electrode assembly 4 that is interposed between two bipolar plates 2 and 3. Schilling does not disclose or suggest a gasket plate. Schilling further discloses that individual cells 1, each consisting of a membrane electrode assembly interposed between two bipolar plates, are interconnected in a manner that is illustrated in Fig. 2. Schilling, however, fails to disclose or suggest disposing a gasket plate in its sealing system.

Moreover, Schilling additionally fails to teach or suggest an “anchor groove extending toward an outer edge of the bipolar plate,” as recited in claim 1. Applicants’ Fig. 2, for example, illustrates a claimed bipolar plate 100 including an anchor groove 112. As emphasized in region A, the anchor groove 112 extend toward an outer edge of the bipolar plate 100.

The Examiner alleged that blind holes 16 and 18 in Schilling correspond to the claimed “anchor groove.” See Office Action at page 3. This is not correct. Figs. 3A and 3B of Schilling show a top view of a bipolar plate 2 and a cross-section along a line A-A’, respectively. As illustrated in Fig. 3B, in particular, the blind holes 16 and 18 extend into the bipolar plate 2. That is, the blind holes 16 and 18 extend in the thickness direction of the bipolar plate 2 instead of toward an outer edge of the bipolar plate 2. Accordingly, contrary to the Examiner’s allegation, the blind holes 16 and 18 cannot correspond to the claimed “anchor groove extending toward an outer edge of the bipolar plate,” as recited in claim 1.

Sasaki and Sakumato were cited by the Examiner in connection with dependent claims 7 and 8. Even assuming that these references provide the teachings alleged by the Examiner, which Applicants do not concede, Sasaki and Sakumato fail to overcome at least the above-discussed deficiencies of Schilling regarding claim 1.

In view of at least the above deficiencies, the Office Action has failed to determine the scope and content of the prior art and ascertain the differences between independent claim 1 and the prior art. Accordingly, the Office Action has not clearly articulated a reason why claim 1 would have been obvious to one of ordinary skill in view of the cited prior art references. Therefore, a *prima facie* case of obviousness has not been established for claim 1, and dependent claims 3-10. The Examiner should therefore withdraw the rejections of claims 1 and 3-10 under 35 U.S.C. § 103(a).


In view of the foregoing, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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